AMENDMENTS TO THE CLAIMS

This listing will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A nail and screw system for improving the fixation of proximal fractures of the humerus, comprising:

at least one cannulated humeral nail to be inserted in a humeral shaft, having at least a proximal transversal hole comprising a ~~couple~~ pair of opposite holes on a wall of the cannulated nail for the passage of a corresponding locking screw, said locking screw having a screw head, a screw body and an outside thread diameter smaller than the diameter of said at least one transversal hole;

wherein said transversal hole has an internal partially threaded portion, which is a portion of nut screw or a knurl portion,

wherein said partially threaded portion of said transversal hole extends through a portion of a perimeter of the transversal hole without extending fully around the perimeter of the transversal hole, and

wherein the threaded portion of the proximal transversal hole of the nail engages the threaded portion of the locking screw at least in a crest to crest fashion.

2. (Currently amended) The nail and screw system according to claim 1, wherein the hole closer to the screw head of the pair of opposite holes forming the transversal hole includes said partially threaded portion.

3. (Previously presented) The nail and screw system according to claim 1, wherein said screw body is fully threaded with a constant pitch (p) and comprises threads having a triangular cross-section profile.

4. (Previously presented) The nail and screw system according to claim 3, wherein said triangular cross-section profile has cusp or acute apex angles of 60°.

5. (Previously presented) The nail and screw system according to claim 1, further including at least an intermediate plate element inserted between said screw head and the bone cortex surface so that the head is abutting against said plate.

6. (Previously presented) The nail and screw system according to claim 5, wherein said intermediate plate element includes a slightly curved surface to adhere substantially to the bone cortex surface.

7. (Currently amended) The nail and screw system according to claim 5, wherein said intermediate plate element comprises a couple of elongated arm portions that are ~~inserted in an~~ positioned astride ~~position on~~ the screw body before the final fastening of the screw head.

8. (Previously presented) The nail and screw system according to claim 7, wherein said elongated arm portions present rounded ends.

9. (Previously presented) The nail and screw system according to claim 7, wherein said intermediate plate element comprises an enlarged portion having at least a seat for embracing at least a fragment fixation pin.

10. (Currently amended) The nail and screw system according to claim 9, wherein said seat is at least [[a]] one hole formed in said enlarged portion of the intermediate plate element.

11. (Currently amended) The nail and screw system according to claim 9, wherein said seat is at least [[a]] one hole formed in at least one of said elongated arm portions.

12. (Previously presented) The nail and screw system according to claim 5, wherein said intermediate plate element has a substantially rounded profile.

13. (Previously presented) The nail and screw system according to claim 9, wherein said intermediate plate element is an open washer integrally formed with a flange portion.

14. (Currently amended) The nail and screw system according to claim 5, wherein a second intermediate plate element is inserted between the screw head of a second locking screw, passing through a second proximal transversal hole of the nail, and the bone cortex surface.

15. (Previously presented) The nail and screw system according to claim 14, wherein said second intermediate plate element is larger than a first intermediate plate element.

16. (Previously presented) The nail and screw system according to claim 14, wherein said second intermediate plate element comprises a couple of elongated arm portions that are inserted in an astride position on the corresponding screw body.